Figure 1

BAASS:Avidin sequence:

ATGGCCAACAAGCACCTGAGCCTCTCCCTCTTCCTCGTGCTCCTCGGCCTCTCCGCCTCCCT
CGCCAGCGGCGCCAGGAAGTGCTCCCTCACCGGCAAGTGGACCAATGACCTCGGCTCCAACA
TGACCATCGGCGCCGTGAACTCCAGGGGCGAGTTCACCGGCACCTACATCACCGCCGTGACC
GCCACCTCCAACGAGATCAAGGAGTCCCCCCTCCACGGTACCCAGAACACCATCAACAAGAG
GACCCAGCCCACCTTCGGCTTCACCGTGAACTGGAAGTTCTCCGAGTCCACCACCGTGTTCA
CCGGCCAGTGCTTCATCGACCGCAACGGCAAGGAGGTGCTCAAGACCATGTGGCTCCTGAGG
AGCTCCGTGAATGACATCGGCGACGACTGGAAGGCCACCCGCGTGGGCATCAACATCTTCAC
CCGCCTCCGCACCCAGAAGGAGTGA

Figure 2

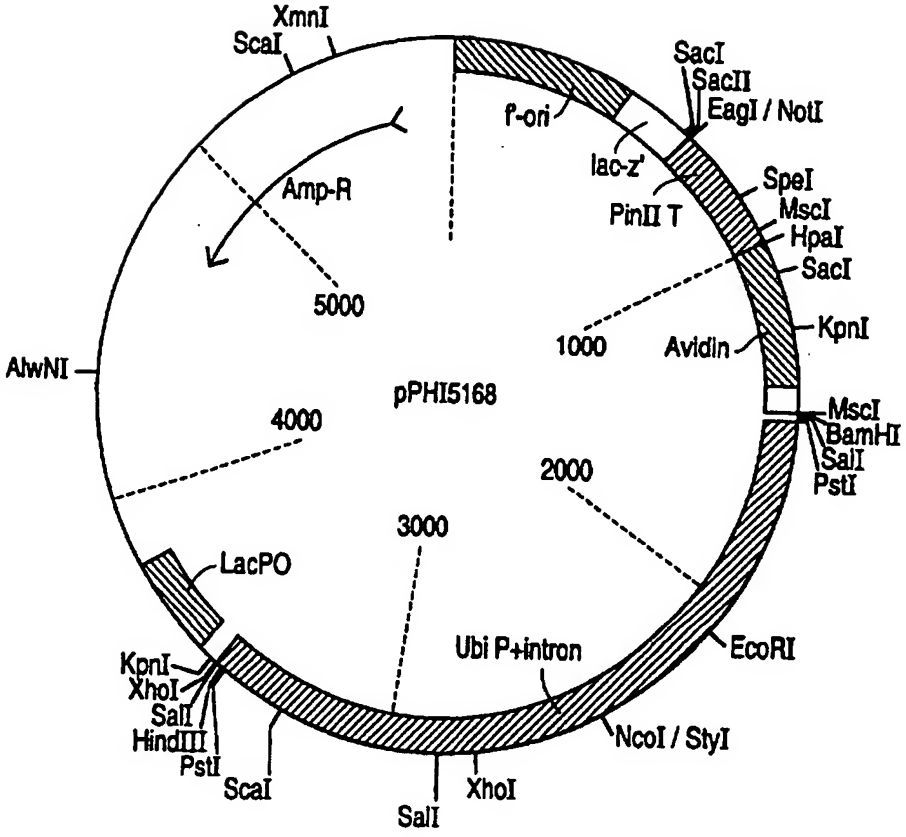
XmnI
ScaI
SacI
SacII
EagI / NotI
f1-ori
lac-z'
PinII T
SpeI
MscI
HpaI
SacI
KpnI
Avidin
MscI
BamHI
SalI
PstI
Amp-R
5000
1000
2000
3000
4000
pPHI5168
AlwNI
LacPO
Ubi P+intron
EcoRI
NcoI / StyI
XhoI
SalI
ScaI
PstI
HindIII
SalI
XhoI
KpnI

Figure 3

Maize optimized (mo) *pat* sequence:

atgtcccccgagcgccgccccgtcgagatccgcccggccaccgccgccgacatggccgccgtgtg
cgacatcgtgaaccactacatcgagacctccaccgtgaacttccgcaccgagccgcagaccccgc
aggagtggatcgacgacctggagcgcctccaggaccgctacccgtggctcgtggccgaggtggag
ggcgtggtggccggcatcgcctacgccggcccgtggaaggcccgcaacgcctacgactggaccgt
ggagtccaccgtgtacgtgtcccaccgccaccagcgcctcggcctcggctccaccctctacaccc
acctcctcaagagcatggaggcccagggcttcaagtccgtggtggccgtgatcggcctcccgaac
gacccgtccgtgcgcctccacgaggccctcggctacaccgcccgcggcaccctccgcgccgccgg
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cgcgcccggtgcgcccggtgacgcagatctga

Figure 4

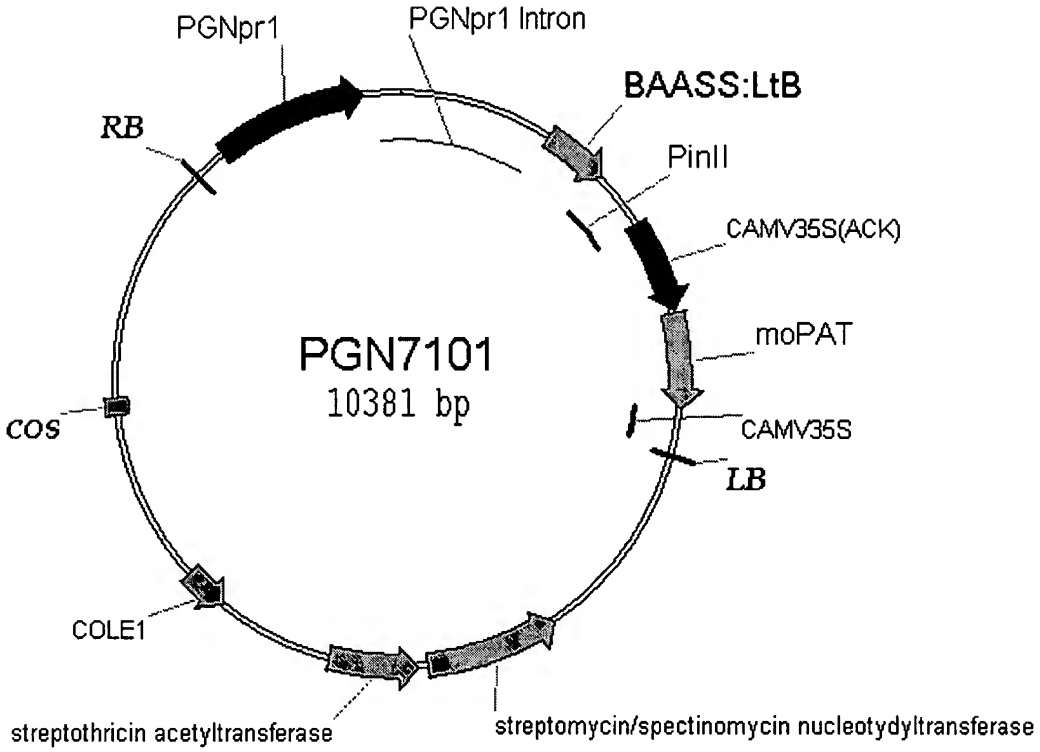
PGNpr1
PGNpr1 Intron
BAASS:LtB
RB
PinII
CAMV35S(ACK)
PGN7101
10381 bp
moPAT
COS
CAMV35S
LB
COLE1
streptothricin acetyltransferase
streptomycin/spectinomycin nucleotydyltransferase

Figure 5A

LtB Sequence:

gccccgcagtccatcaccgagctctgctccgagtaccacaacacccagatctacaccatcaacga
caagatcctctcctacaccgagagcatggccggcaagcgcgagatggtgatcatcaccttcaagt
ccggcgccaccttccaggtggaggtgccgggctcccagcacatcgactcccagaagaaggccatc
gagcgcatgaaggacaccctccgcatcacctacctcaccgagaccaagatcgacaagctctgcgt
gtggaacaacaagaccccgaactccatcgccgccatcagcatggagaac

Figure 5B

BAASS:LtB sequence:

atggccaacaagcacctgagcctctccctcttcctcgtgctcctcggcctctccgcctccctcgc
cagcggcgccccgcagtccatcaccgagctctgctccgagtaccacaacacccagatctacacca
tcaacgacaagatcctctcctacaccgagagcatggccggcaagcgcgagatggtgatcatcacc
ttcaagtccggcgccaccttccaggtggaggtgccgggctcccagcacatcgactcccagaagaa
ggccatcgagcgcatgaaggacaccctccgcatcacctacctcaccgagaccaagatcgacaagc
tctgcgtgtggaacaacaagaccccgaactccatcgccgccatcagcatggagaact

Figure 6

VP2 sequence from IPNV:

aacaccaacaaggcaaccgcaacttacttgaaatccatcatgcttccagagactggaccagcaag
catcccggacgacataacggagagacacatcctaaaacaagagacctcgtcatacaacctagagg
tctccgaatcaggaagtggcattcttgtttgtttccctggggcaccaggctcacggatcggtgca
cactacagatggaatgcgaaccagacggggctggagttcgaccagtggctggagacgtcgcagga
cctgaagaaagccttcaactacgggaggctgatctcaaggaaatacgacatccaaagctccacac
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gagacataaacttcagtctggcagaacaacccgcaaacgagaccaagttcgacttccagctggac
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gtgacctgcccacgtcaaaggcatggggctggagagacatagtcagaggaattcggaaagtcgca
gctcctgtactgtccacgctgtttccaatggcagcaccactcatcgga

Figure 7

BAASS:VP2 sequence from IPNV:

atggcgaacaagcacctgagccttagcctcttcctcgtgctcctgggcctctccgcctccctcgc
ctccggcaacaccaacaaggcaaccgcaacttacttgaaatccatcatgcttccagagactggac
cagcaagcatcccggacgacataacggagagacacatcctaaaacaagagacctcgtcatacaac
ctagaggtctccgaatcaggaagtggcattcttgtttgtttccctggggcaccaggctcacggat
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tccacactaccggccggtctctatgctctgaacgggacgctcaacgctgccaccttcgaaggcag
tctgtctgaggtggagagcctgacctacaacagcctgatgtccctaacaacgaacccccaggaca
aagtcaacaaccagctggtgaccaaaggagtcacagtcctgaatctaccaacagggttcgacaaa
ccatacgtccgcctagaggacgagacaccccagggtctccagtcaatgaacggggccaagatgag
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gctggacttcatgggccttgacaacgacgtcccagttgtcacagtggtcagctccgtgctggcca
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aagccgatcaccagggtcaagctgtcatacaagatcaaccagcagacagcaatcggcaacgtcgc
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tcaggacagtgtggaggacagaggagtacaaggagaggaccagagtcttcaacgaaatcacggac
ttctccagtgacctgcccacgtcaaaggcatggggctggagagacatagtcagaggaattcggaa
agtcgcagctcctgtactgtccacgctgtttccaatggcagcaccactcatcgga

Figure 8

VP3 sequence from IPNV:

gacgaggagctgcagcgcctcctgaacgccacgatggccagggccaaggaggtccaggacgccga
gatctacaaacttcttaagctcatggcatggaccagaaagaacgacctcaccgaccacatgtacg
agtggtcaaaagaggaccccgatgcactaaagttcggaaagctcatcagcacgccaccaaagcac
cctgagaagcccaaaggaccagaccaacaccacgcccaagaggcgagagccacccgcatatcatt
ggacgccgtgagagccggggcggacttcgccacaccggaatgggtcgcgctgaacaactaccgcg
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ctgtattcgcacagaacggaggcagaggtcccgaccaggaccaaatgcaagacctcagggagctc
gcaagacagatgaaacgcaggcccaggaacgccgatgcgccacgcaggaccagggcgccagcgga
accggcaccgcccggacgctcaaggttcacgcccagcggagacaacgctgaggtg

Figure 9

BAASS:VP3 sequence from IPNV:

atggcgaacaagcacctgagccttagcctcttcctcgtgctcctgggcctctccgcctccctcgc
ctccggcgacgaggagctgcagcgcctcctgaacgccacgatggccagggccaaggaggtccagg
acgccgagatctacaaacttcttaagctcatggcatggaccagaaagaacgacctcaccgaccac
atgtacgagtggtcaaaagaggaccccgatgcactaaagttcggaaagctcatcagcacgccacc
aaagcaccctgagaagcccaaaggaccagaccaacaccacgcccaagaggcgagagccacccgca
tatcattggacgccgtgagagccggggcggacttcgccacaccggaatgggtcgcgctgaacaac
taccgcggcccatctcccgggcagttcaagtactacctgatcactggacgagaaccagaaccagg
cgacgagtacgaggactacataaaacaacccattgtgaaaccgaccgacatgaacaaaatcagac
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gttgcagctgtattcgcacagaacggaggcagaggtcccgaccaggaccaaatgcaagacctcag
ggagctcgcaagacagatgaaacgcaggcccaggaacgccgatgcgccacgcaggaccagggcgc
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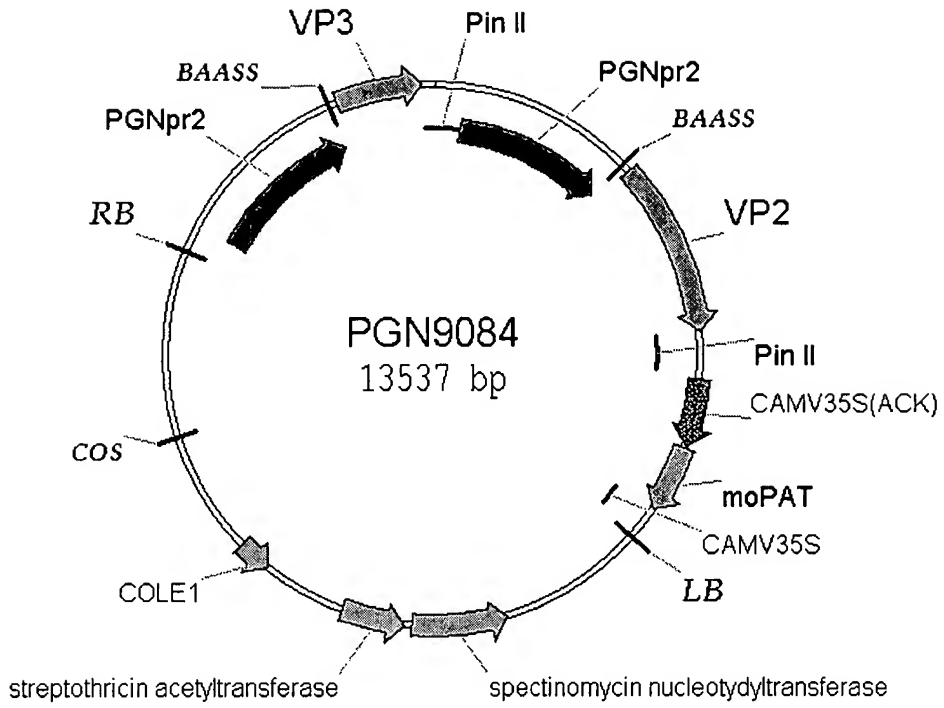
Figure 10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Pin II
BAASS
PGNpr2
PGNpr2
BAASS
RB
VP2
PGN9084
13537 bp
Pin II
CAMV35S(ACK)
COS
moPAT
CAMV35S
LB
COLE1
streptothricin acetyltransferase
spectinomycin nucleotydyltransferase

Figure 11

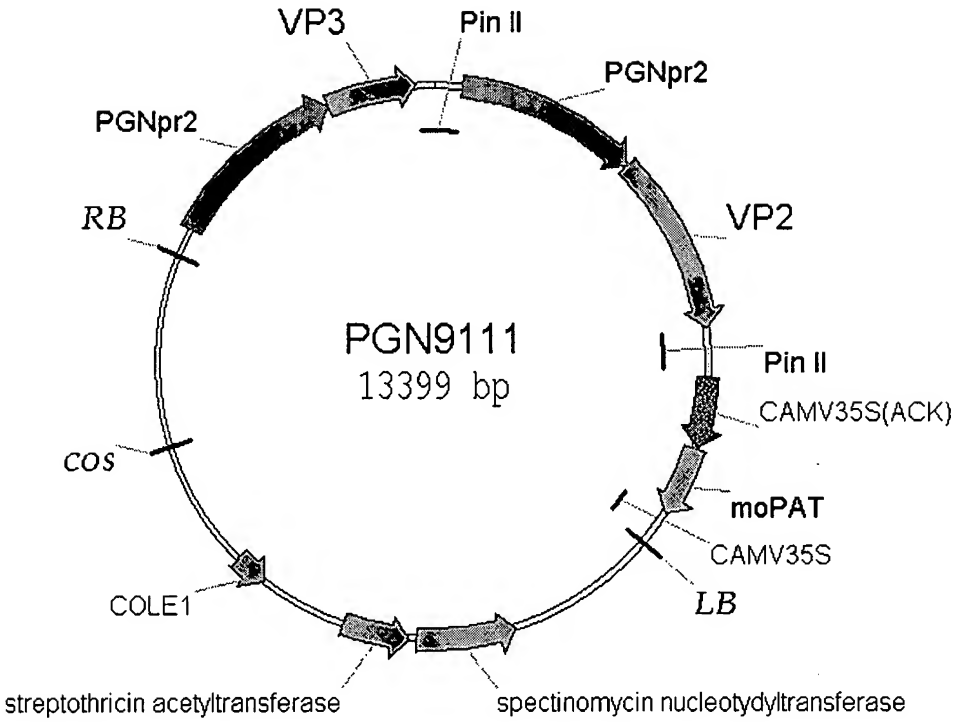

VP3
Pin II
PGNpr2
PGNpr2
RB
VP2
PGN9111
13399 bp
Pin II
CAMV35S(ACK)
COS
moPAT
CAMV35S
LB
COLE1
streptothricin acetyltransferase
spectinomycin nucleotydyltransferase

Figure 12

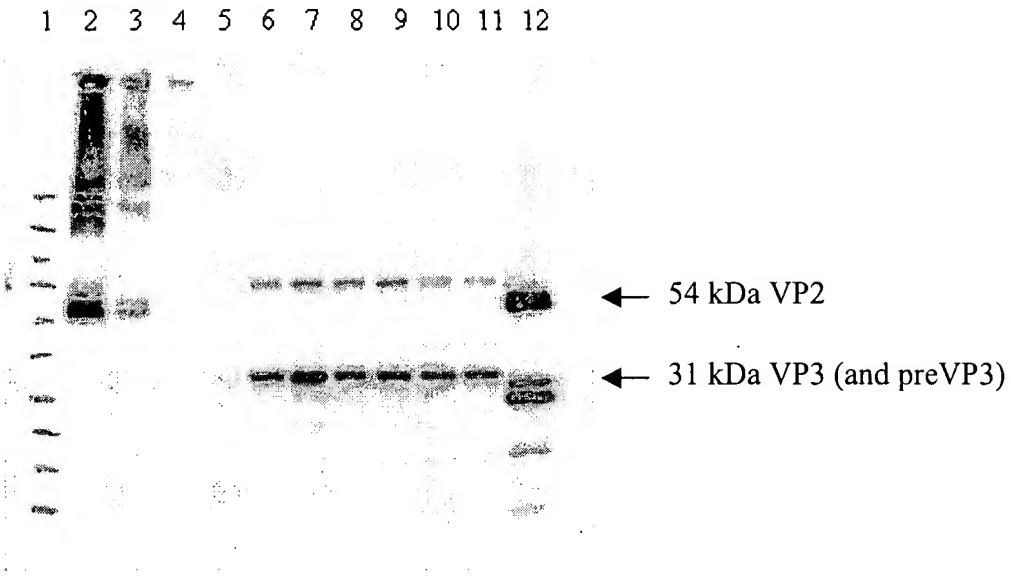
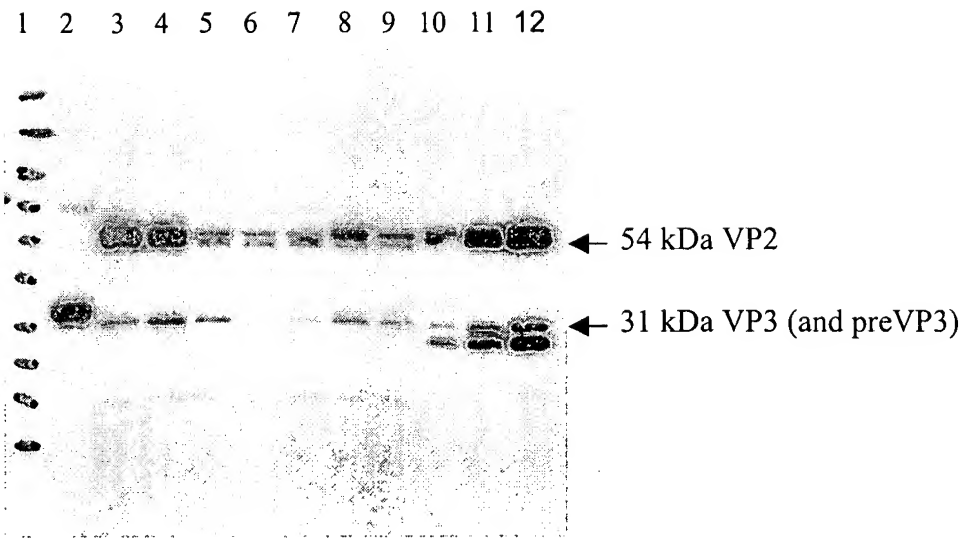


Figure 13



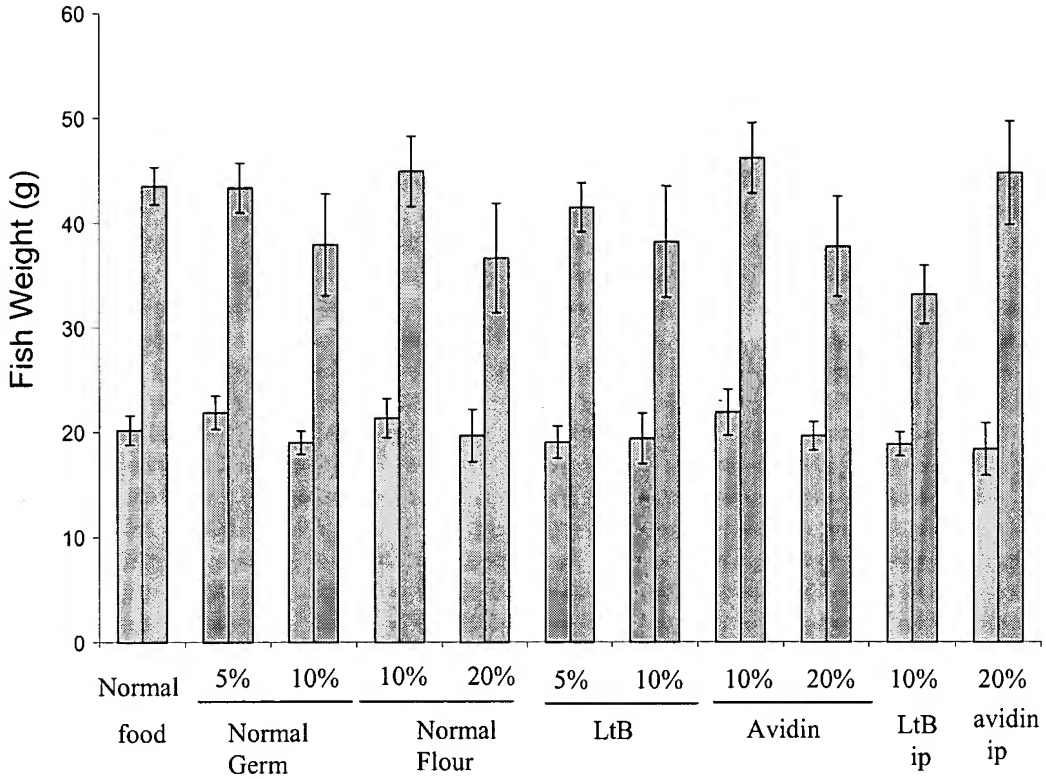
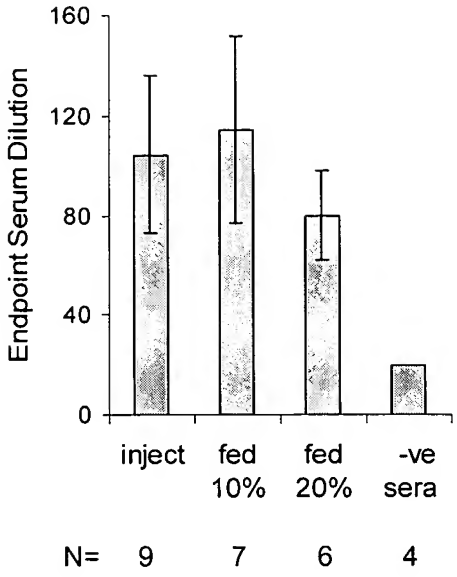

Fish Weight (g)
60
50
40
30
20
10
0
Normal
5%
10%
10%
20%
5%
10%
10%
20%
10%
20%
food
Normal Germ
Normal Flour
LtB
Avidin
LtB ip
avidin ip

Figure 14

A) Avidin



B) LtB (1/80 serum dilution)

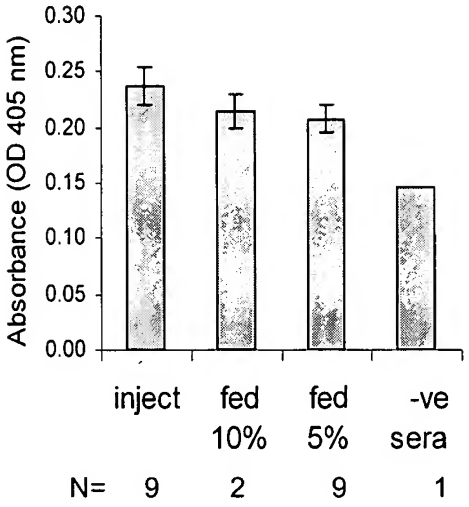


Figure 15